At this time the Ibiquity IBOC system should not be set as a standard for the US. Ibiquity should be encouraged to apply for more STAs and collect more real world data but during this time the door should remain open to other more efficient technologies and keeping digital radio in this country compatible with emerging world standards.

In a report submitted by Ibiquity April 15th of this year, the necessary channel of a hybrid digital signal is reported as being 30 kilohertz.

While the digital channels are presented as conforming to the present emission mask, the primary digital channels are actually on two adjacent channels. The emission mask was originally to aid in developing reasonable protections for analog AM stations. Information beyond +/- 10 kilohertz is a byproduct of transmitter and processor performance and does not carry vital information. The mask unto itself is not protected, only the primary channel is. Furthermore, most exisitng directional antennas will not properly pass such a wide bandwidth within a pattern that resembles the licensed analog pattern.

Ibiquity is now depending on the use of frequencies for the primary digital carriers that are in fact the adjacent channels. There is not a mechanism in place to protect these signals. This makes hybrid IBOC essentially an unprotected service, a risky investment to say the least. A fully implemented hybrid mode IBOC system would have all stations overlapping twice. Conversion to the slightly more efficient all digital mode could never happen until there was enough receiver penetration and therefore a very large number of stations would be operating in the hybrid mode for a relatively long period of time. The report also shows that the primary digital carriers are 25 DB below analog, putting those signals at a severe penalty under interference conditions. At the usual limit of analog coverage, these signals could be 19 or more DB below the analog interferers. Digital coverage would be severely restricted under such conditions. This could be fatal to a transition to a fully digital mode.

Other technologies now exist and are operation that are much more spectrally efficient and avoid many of the problems described. In a hybrid analog and digital mode, operation could be contained within the 20 kilohertz channel now occupied by the analog signal. A fully digital mode would be half the channel width now occupied by analog AM signals. This could be done without reducing the fidelity of the analog signal during transition. After transition, medium wave channels could be vastly improved.

A digital signal that is not definitively linked with the antenna charactaristics of the analog signal could be broadcast with less difficulty while using less spectrum. For example, operation on one adjacent channel could be engineered in accordance to the digital to analog interference ratios that would exist for that frequency. This is often very different from what may exist on the opposite adjacent channel or the primary analog channel for that matter. A broadcaster might be able to employ a much less complicated pattern for a digital signal, rather than operate under the design limits of an array designed around the protections of the Analog channel. The digital protections would be totally different.

The Commission should permit and Ibiquity should persue a system that conforms to ITU-R BS.1514 and is compatible with receivers world wide.

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